This Question Paper consists of 39 questions and 8 printed pages.

Roll No. | | | | | | | | | | | | |

Code No. **68/ESS/1**

SET **A**

# COMPUTER SCIENCE
# (330)

**Day and Date of Examination :** _____

**Signature of Invigilators :** 1. _____

2. _____

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**General Instructions :**

1. Candidate must write his/her Roll Number on the first page of the Question Paper.

2. Please check the Question Paper to verify that the total pages and total number of questions contained in the Question Paper are the same as those printed on the top of the first page. Also check to see that the questions are in sequential order.

3. Making any identification mark in the Answer-Book or writing Roll Number anywhere other than the specified places will lead to disqualification of the candidate.

4. Write your Question Paper Code No. **68/ESS/1-A** on the Answer-Book.

# COMPUTER SCIENCE
# (330)

**[Time : 3 Hours ]** **[ Maximum Marks : 60]**

**Note :** (i) This question paper consists of **39** questions in all.

(ii) All questions are compulsory.

(iii) Marks are given against each question.

(iv) **Section - A consists of :**

(a) **Q.No. 01** to **12** Multiple Choice type questions (MCQ's) carrying **01** mark each. Select and write the most appropriate option out of the **four** options given in each of these questions.

(b) **Q.No. 13** to **24** carry **01** mark each and **Q.No. 25** to **27** - Objective type questions of **02** marks each (with **02** sub-parts of **01** mark each). Attempt these questions as per the instructions given for each of the questions **13 - 27.**

(v) **Section - B consists of :**

(a) **Q.No. 28** to **35** - Very Short questions carrying **02** marks each to be answered in the range of **30** to **50** words.

(b) **Q.No. 36** and **37** - Short Answer type questions carrying **03** marks each to be answered in the range of **50** to **80** words.

(c) **Q.No. 38** and **39** - Long Answer type questions carrying **04** marks each to be answered in the range of **80** to **120** words.

**NOTE :** (1) Answers of **all** questions are to be given in the Answer-Book given to you.

(2) **15** minutes time has been allotted to read this question paper. The question paper will be distributed at 02.15 p.m. From 02.15 p.m. to 02.30 p.m., the students will read the question paper only and will not write any answer on the Answer-Book during this period.

## SECTION - A

**1.** Identify the attribute of the < img > tag that is used to specify the URL of the image that helps you to create a image in webpage. **1**

(A) source (B) url (C) src (D) path

**2.** What is the use of Ctrl + Q in presentation ? **1**

(A) Open a presentation (B) Close a presentation

(C) Queue a presentation (D) Print a Presentation

**3.** Which of the following is used to create Bulleted List in HTML ? **1**

(A) <bl> (B) <ol> (C) <ul> (D) <dl>

4. Which category of header files among the following has exp(x) function in C++ ? 1

(A) string (B) mathematical (C) character (D) text

5. Which of the following is used for displaying the text "OCTOBER" in BOLD in HTML ? 1

(A) <bold> OCTOBER </bl>

(B) <bl> OCTOBER </underline>

(C)  OCTOBER 

(D) <bb> OCTOBER </bb>

6. Identify the closing tag for <br> : 1

(A) </br> (B) <br//> (C) no ending tag (D) <*br>

7. Find the output produced by the following program segment. Assume all header functions are included. 1

```
void main()
{
int x = 88;
int *y = &x ;
cout << *y;
}
```

(A) 88 (B) *88 (C) &88 (D) &x

8. Which of the following attribute is used to specify the width of border for an image in HTML ? 1

(A) line (B) box (C) border (D) blackline

9. Which of the following is used to create line break in HTML ? 1

(A) < break > (B) < br > (C) < line > (D) < linebreak >

10. Which of the following can be added in an Impress presentation ? 1

(A) Text (B) Picture (C) Audio (D) All the above

11. Which of the following is supported by Word Processor ? 1

(A) Creating data (B) Formatting data

(C) Printing data (D) All the above

12. Which among the following is an example of spread sheet software ? 1

(A) MS Word (B) Impress (C) Lotus 1-2-3 (D) All the above

13. Give one example of Protocol used in communication. 1

14. The octal equivalent of $(343)_{10}$ is _____. 1

**15.** What will be the output produced by the below given program if the value of the variable x is 18 ? **1**

```
#include <iostream.h>
int main()
{
int x;
int y;
cin >> x;
y = 3;
if (x/y < 12)
cout << "Good Morning";
else
cout << "Good Afternoon"; return 0;
}
```

**16.** The decimal equivalent of $(AAA)_{16}$ is _____. **1**

**17.** Which tag is used to create a heading with the biggest size in a webpage ? **1**

**18.** What is the header file for log10(x) ? **1**

**19.** What is the ASCII value of 'B' ? **1**

**20.** Expand ARPANET. **1**

**21.** Consider the below given program, what output will be produced if the value for the variable ch is entered as 'a' ? **1**

```
#include <iostream.h>
void main()
{
char ch;
cin >> ch;
switch(ch)
  {
     case 'A' :
    cout << "A Grade";
     break;
     case 'B' :
    cout << "B Grade";
     break;
     case 'C' :
    cout << "C Grade";
     break;
     case 'D' :
    cout << "D Grade";
     break;
     default :
     cout << "NO Grade";
  }
}
```

**22.** What will be the output produced by the below given program ? **1**

```
#include <iostream.h>
void main()
{
int i=0, s=0;
while ( i < 4 )
  {
       s= s+ i;
       i++;
  }
  cout << s; return 0;
}
```

**23.** What will be the output produced by the below given program ? **1**

```
#include <iostream.h>
void main()
{
struct emp
{
int eno ;
float sal ;
};
struct emp E;
E.eno = 1234;
E.sal = 15643.5;
cout << E.eno << E.sal;
}
```

**24.** What is statement 1 in the below given program ? **1**

Assume all header files are included.

```
#include <iostream.h>
void change(int); //Statement1
void main()
{
int a = 5;
cout <<"a = " << a << endl;
change(a);
cout <<"a = " << a;
}
void change(int b)
{
b = 10;
}
```

**25.** Fill in the blanks : **2**

(a) Writing data on the data file requires _____ header file.

(b) ios :: app opens the file in _____ mode.

**26.** State whether the following statements are True or False : **2**

(a) A pointer is a variable that refers to the location of another variable.

(b) Object pointers are used to create objects during run time.

**27.** Give one word for the following : **2**

(i) Cell in Calc is _____.

(ii) Individual page of a spreadsheet is known as _____.

## SECTION - B

**28.** What do you mean by simplex transmission ? **2**

**OR**

What do you mean by bandwidth ?

**29.** Define Attribute. **2**

**OR**

Define Domain.

**30.** Write SQL queries for the following based on the below given BUS table. **2**

| BUS | | | |
|---|---|---|---|
| **BUS NO** | **BUS NAME** | **YEAR** | **TYPE** |
| B001 | NEERU | 2024 | VOLVO |
| B002 | RAVANA | 2022 | SCANIA |
| B003 | MAHAVEER | 2019 | VOLVO |
| B004 | ROLI | 2024 | TATA |
| B005 | VIKRAM | 2019 | BENZ |

(a) Insert the record B005, LAXMI, 2023, VOLVO.

(b) Display the details of volvo buses.

**31.** Name any two components of Writer Window. **2**

**32.** Why HTML document should be saved with the extension .html and Name one browser that helps us to open a HTML document. **2**

**33.** 2

```
#include <iostream.h>
#include <string.h>
struct ITEM
{
char iname [20];
int price;
};
void main()
{
__________ // statement 1
__________ // statement 2
cout << s1.iname ;
cout << s2.price ;
}
```

Complete the above code for the following :
Statement 1 : Create two objects s1 and s2 of type ITEM.
Statement 2 : Input the value for the variable iname of the StructureVariable s1.

**34.** Write SQL queries to create the below given BUS table. **2**

| **BUS** | | |
|---|---|---|
| BUS NO | VARCHAR(6) | PRIMARY KEY |
| BUS NAME | VARCHAR(15) | |
| YEAR | INT(4) | |
| TYPE | CHAR | |

**OR**

Differentiate fixed length and variable length datatype.

**35.** Define the following terms : (Any two) **2**

(a) Member Functions
(b) Objects
(c) :: operator
(d) Inline Member Function

**36.** Create a webpage using the following instructions : **3**

(a) Heading 'Examination' on the center of the webpage with the smallest heading font.
(b) The Paragraph "I Feel My Exam has gone good" on towards the left of the webpage.
(c) An image to be set having the file name "NIOS2024.jpg" with a height of 6 and width of 3.

**37.** Define the following terms : (Any three) **3**

(i) Primary key
(ii) Physical Data Model
(iii) Domain
(iv) Degree
(v) Default Constraint

**38.** Answer the questions from (i) to (iv) based on the below given program (assume all header files are included). **4**

```
class Graduate {
        int Rollno;
        char GName[20];
        float Marks1;
protected:
        void Result();
public:
Graduate();
        void Enroll();
        void Display();
};
class Lecturer{
        long TCode;
        char TName[20];
Protected:
        float Salary;
public:
        Lecturer();
        void Enter();
        void Show();
};
class Learn: public Graduate, private Lecturer {
long CCode[10];
char LearnName[50];
char StartDate[8], EndDate[8];
public;
Learn();
void Commence();
void CDetail();
};
```

(i) Write the names of member functions, which are accessible from objects of class Learn.

(ii) Write the names of all the data members, which is/are accessible to member function Commence of class Learn.

(iii) Write the names of all the members, which are accessible from objects of class Lecturer.

(iv) Which type of Inheritance is illustrated in the above C++ code ?

**OR**

Define Virtual Base Class. Display the structure by taking an example or with syntax.

**39.** (i) Write a program to create an array of N elements, accept a number from the user, delete the accepted number from the array and print the new array. **4**

**OR**

(ii) Write a C++ program that accepts two numbers (a, b) from the user and passes to a function, the function will perform (a*a) + (b*b) to the main program which will display the output to the user.

**- o O o -**